# Increasing Patient Activation to Improve Health and Reduce Costs

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# The Need to Do Better with Less

- Patients are an important resource in health care.
  - We won't reach quality goals and improved outcomes without patient engagement

# There is great variation in patient activation in any population group

## Measurement would allow us to:

To know who needs more support

To target the types of support and information patients and consumers need

To evaluate efforts to increase activation

To Evaluate quality

# Measurement of Patient Activation

- Share
  - key insights
  - Implications
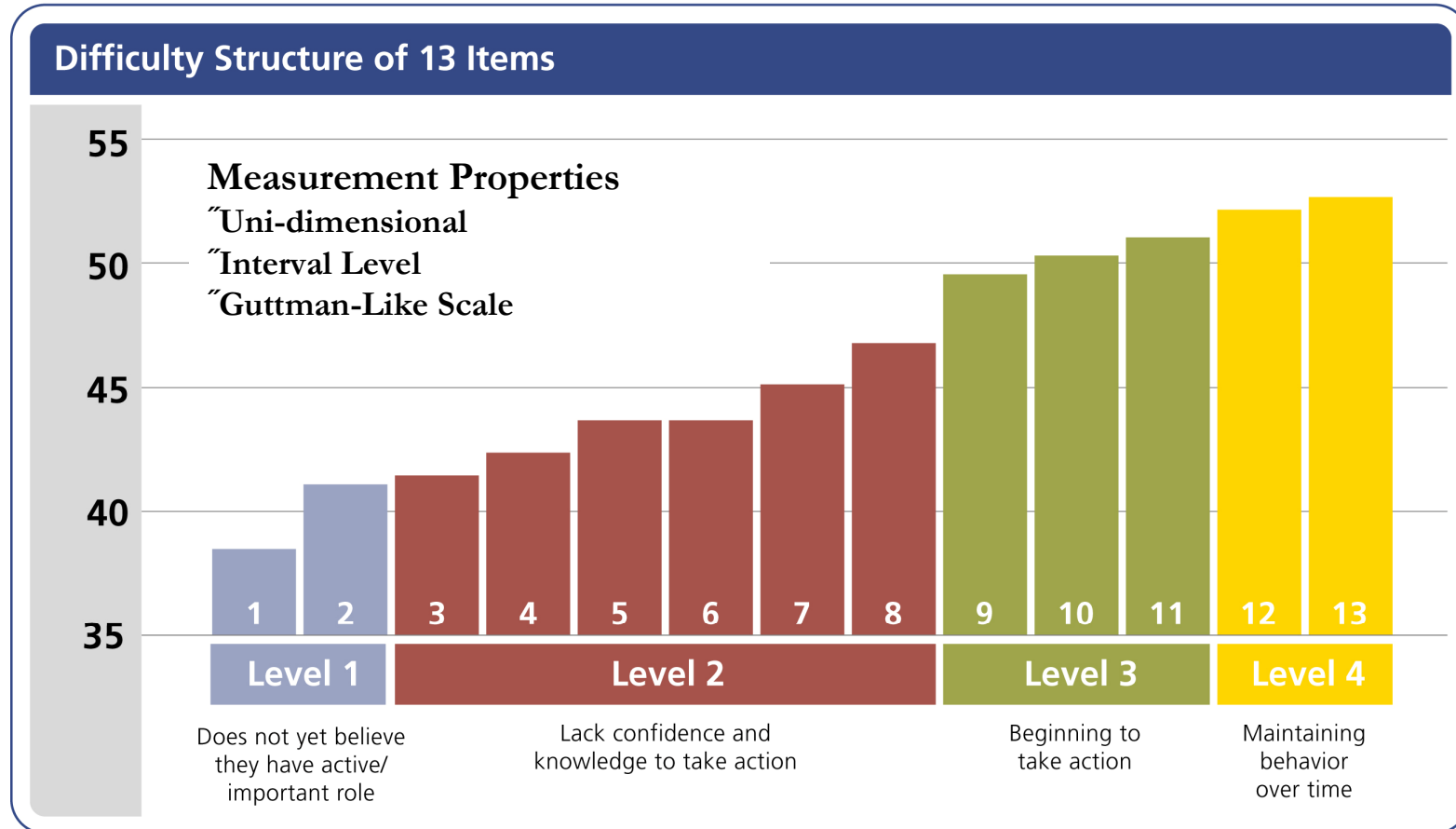  - Applications to improve care and outcomes

# What Does it Mean to Be Activated ?

| | ...self manage | ...collaborate with provider | ...maintain function/ prevent declines | ...access appropriate and high quality care |
|---|---|---|---|---|
| Has the knowledge to: | (red) | | (red) | |
| Has the skills to: | (red) | (red) | (red) | (yellow) |
| Can access emotional support to: | (green) | | (green) | |
| Believes patient is important in: | (red) | (red) | (red) | |

(red) Identified by experts and consumers as a key component

(green) Identified only by experts as a key component

(yellow) Identified by experts as a key component and identified by consumers as a secondary component

# Patient Activation Measurement (PAM)
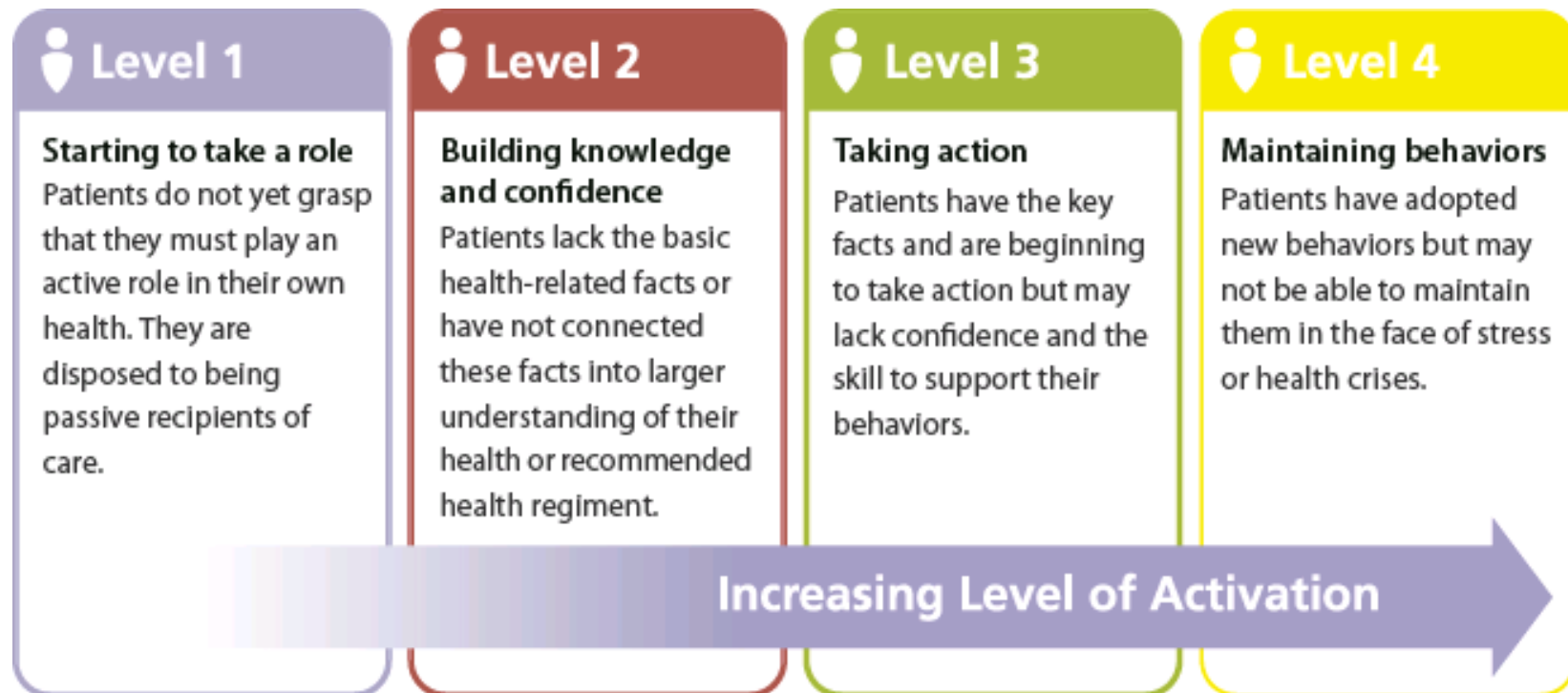## *Difficulty Structure of 13 Items*



**Difficulty Structure of 13 Items**

**Measurement Properties**
˝Uni-dimensional
˝Interval Level
˝Guttman-Like Scale

| Level 1 | Level 2 | Level 3 | Level 4 |
|---------|---------|---------|---------|
| Does not yet believe they have active/ important role | Lack confidence and knowledge to take action | Beginning to take action | Maintaining behavior over time |

# PAM 13 Question

| | |
|---|---|
| **Level 1** | When all is said and done, I am the person who is responsible for taking care of my health |
| | Taking an active role in my own health care is the most important thing that affects my health |
| **Level 2** | I am confident I can help prevent or reduce problems associated with my health |
| | I know what each of my prescribed medications do |
| | I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself. |
| | I am confident that I can tell a doctor concerns I have even when he or she does not ask. |
| | I am confident that I can follow through on medical treatments I may need to do at home |
| | I understand my health problems and what causes them. |
| **Level 3** | I know what treatments are available for my health problems |
| | I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising |
| | I know how to prevent problems with my health |
| **Level 4** | I am confident I can figure out solutions when new problems arise with my health. |
| | I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress. |

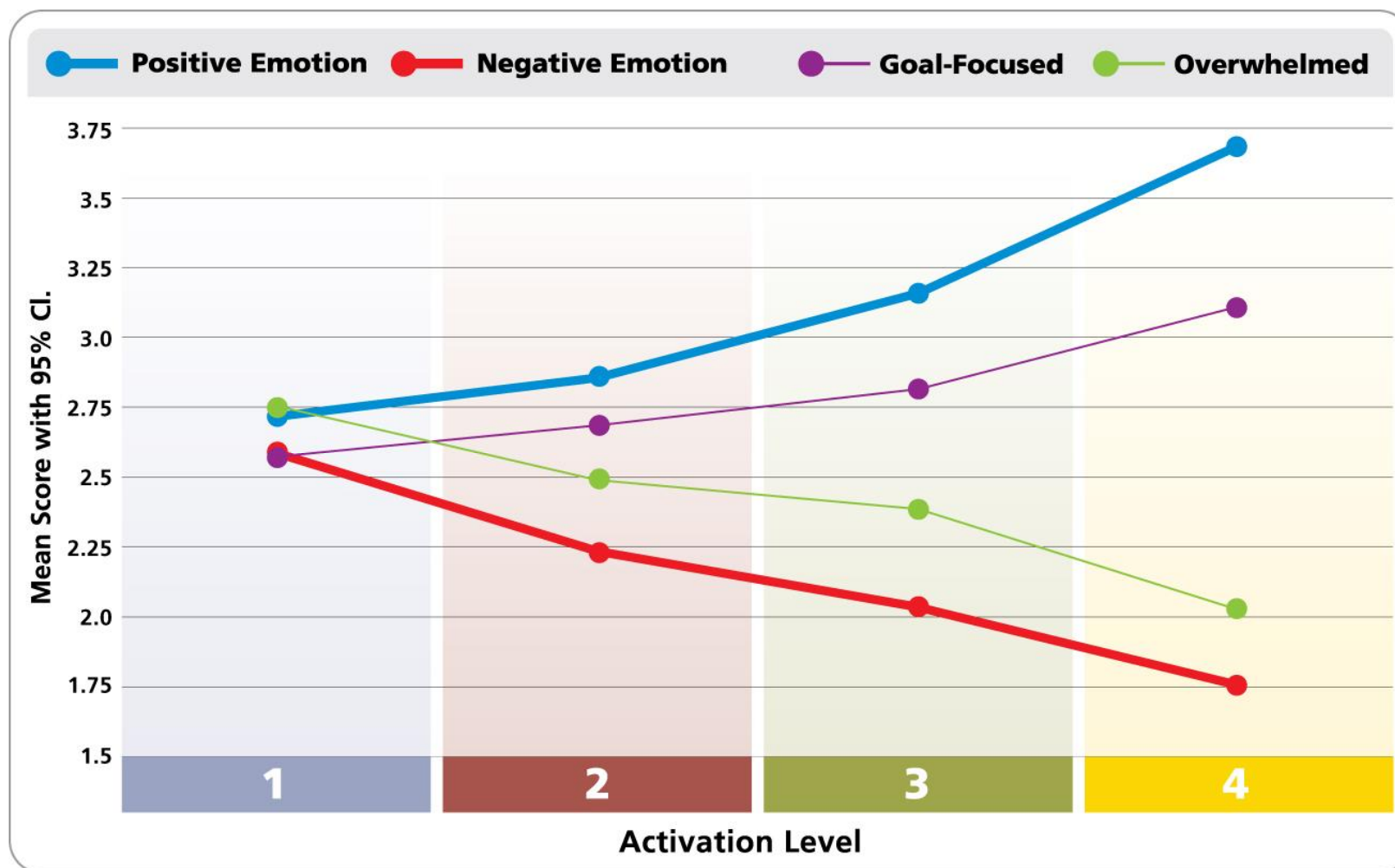* Related instruments: PAM 10, PAM 2, Clinician PAM
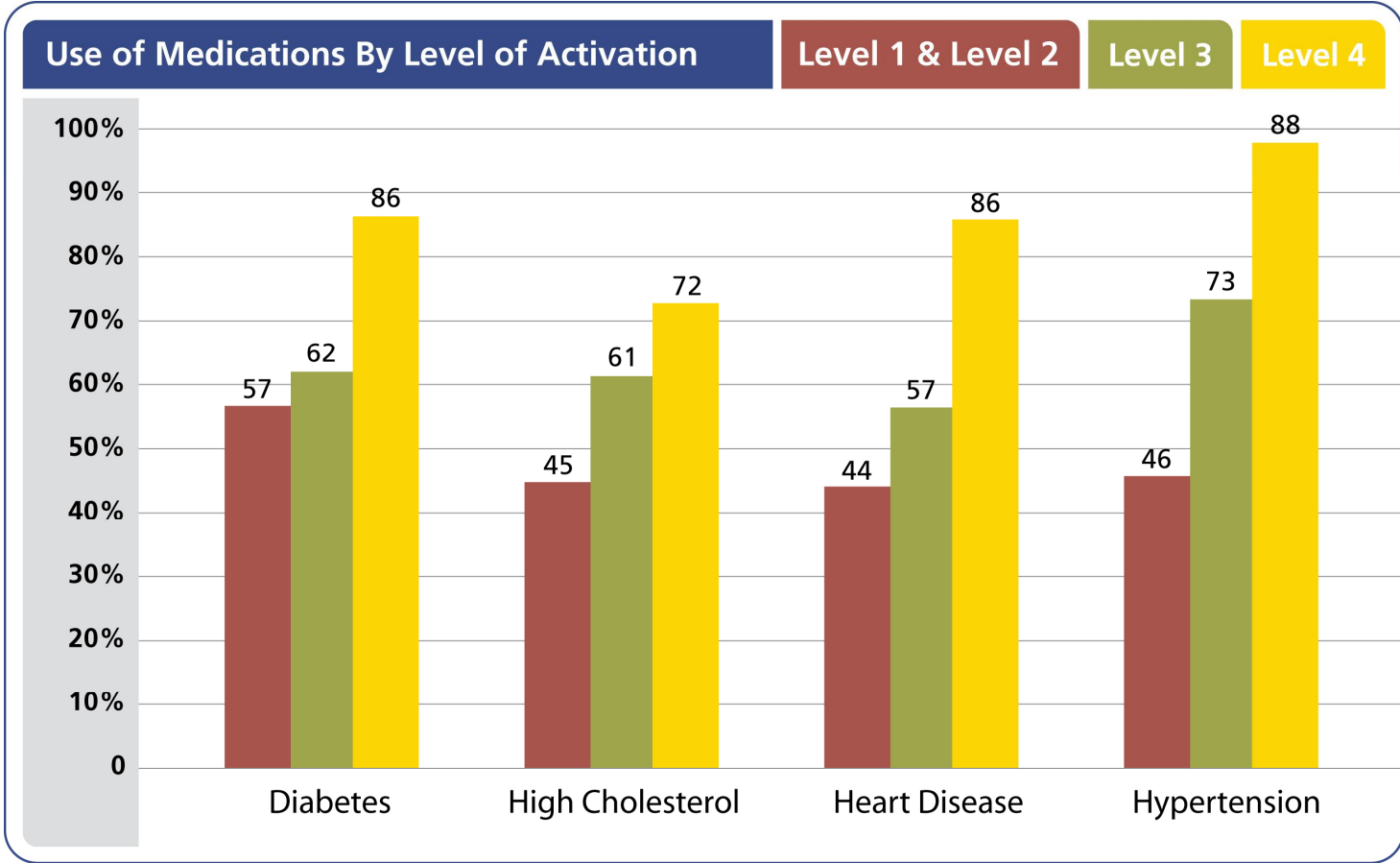
# Activation is developmental



| Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|
| **Starting to take a role** Patients do not yet grasp that they must play an active role in their own health. They are disposed to being passive recipients of care. | **Building knowledge and confidence** Patients lack the basic health-related facts or have not connected these facts into larger understanding of their health or recommended health regiment. | **Taking action** Patients have the key facts and are beginning to take action but may lack confidence and the skill to support their behaviors. | **Maintaining behaviors** Patients have adopted new behaviors but may not be able to maintain them in the face of stress or health crises. |

**Increasing Level of Activation**

Source: J.Hibbard, University of Oregon

# Emotion plays a profound role in patient activation



Source: KnowledgeNetworks National Study 2008

**Use of Medications By Level of Activation** | Level 1 & Level 2 | Level 3 | Level 4

| | Diabetes | High Cholesterol | Heart Disease | Hypertension |
|---|---|---|---|---|
| Level 1 & Level 2 | 57 | 45 | 44 | 46 |
| Level 3 | 62 | 61 | 57 | 73 |
| Level 4 | 86 | 72 | 86 | 88 |

National Study 2004

10

# In their own words, Diabetes patients demonstrate the pivotal differences between activation levels

**Level 1**

*"I don't remember (medications). My memory isn't so good. I have a home health care provider help me"*

*"I don't understand the cause. I just know I was told I have diabetes"*

*"I'm under a lot of stress because my husband has cancer, but I try to do the things I'm supposed to do. I have to be here to take care of my husband"*

**Level 2**

*"They say I should test my sugar every day. I don't do this because I can't stand to prick myself"*

*"I try to stay away from sweets … sometimes I win, sometimes I lose"*

*"I know I'm supposed to (tell a doctor concerns) but sometimes I don't. I try to cut down on my time at the doctor"*

**Level 3**

*"In the beginning I didn't want to help myself. For the first four years, I was in denial … and really depressed. Then I bought the book "Diabetes For Dummies," and I got over my depression and decided to start helping myself. I'm doing a lot better now"*

*"I write down my concerns. I also have goals for myself – like losing weight. I write down how I'm doing with my goals. I've lost 20 pounds!"*

**Level 4**

*"My doctor can only do so much. I have to manage my health"*

*"I have to be my own advocate when it comes to my health"*

*"I feel it has to be a team effort between the doctor and the patient and the patient needs to be proactive in it"*
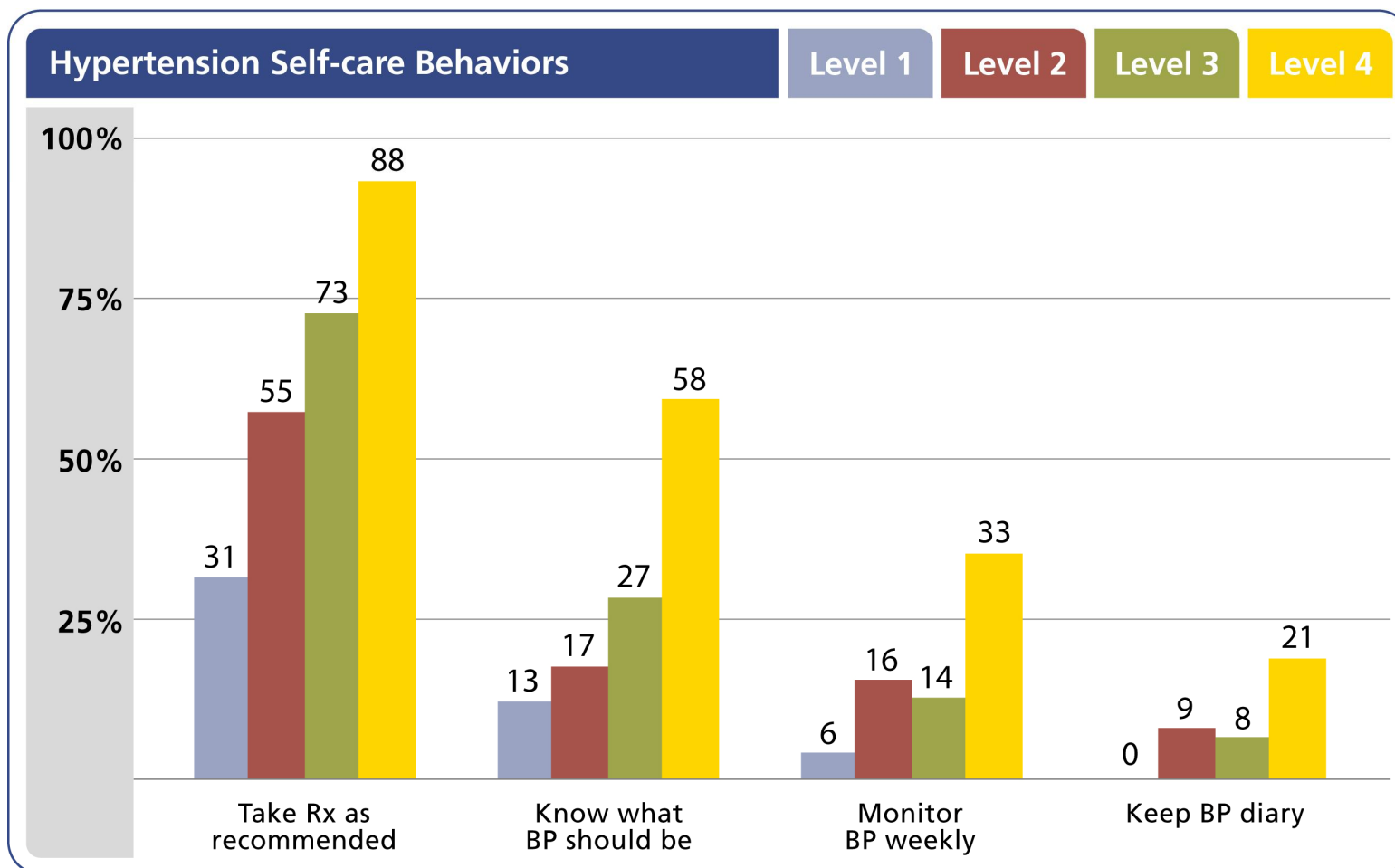
# Activation Level is Predictive of Behaviors

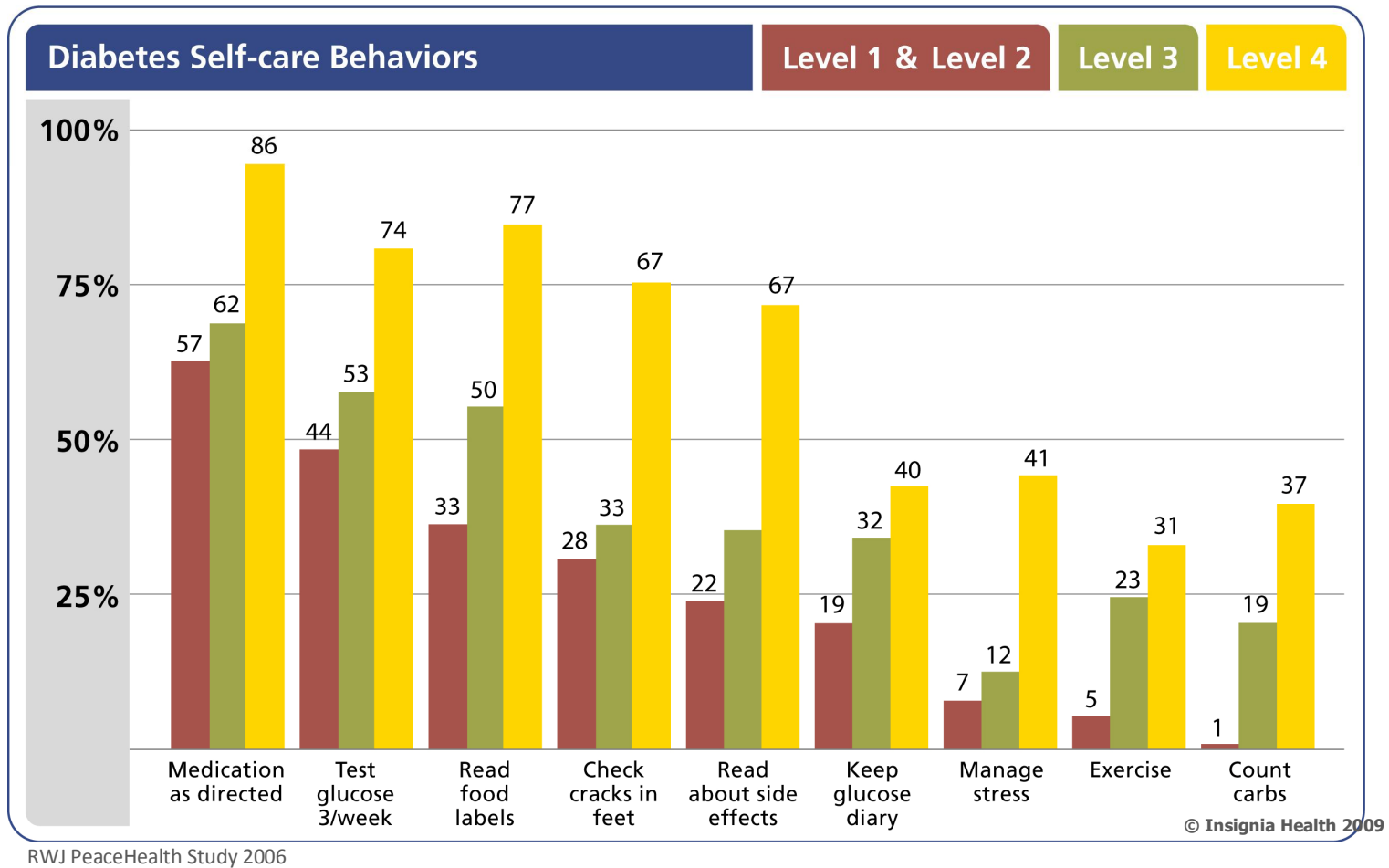Research consistently finds that those who are more activated are:

- Engaged in more preventive behaviors

- Engaged in more healthy behaviors

- Engaged in more disease specific self-management behaviors

- Engaged in more health information seeking behaviors
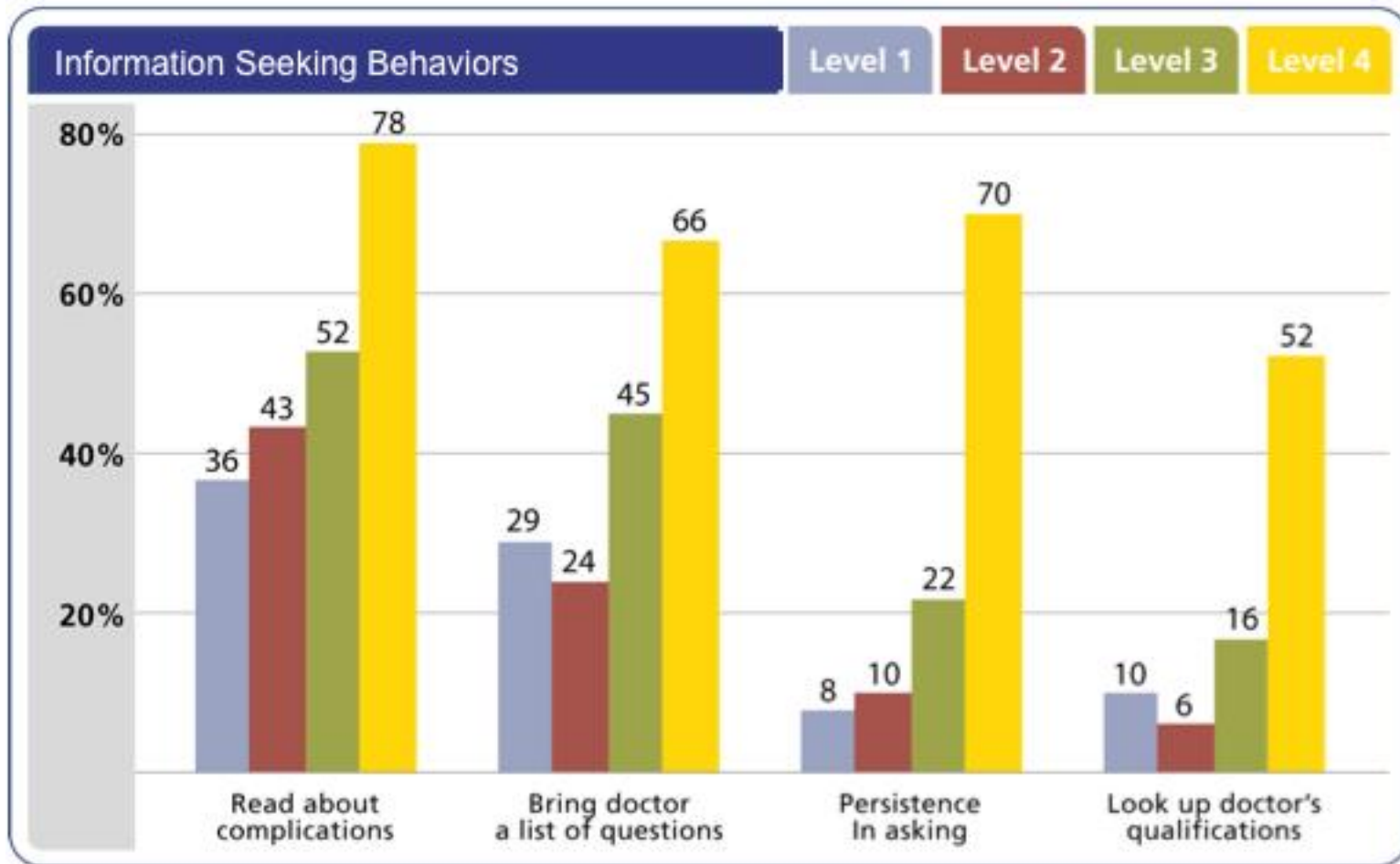
# Level of activation is linked with each behavior

| Hypertension Self-care Behaviors | Level 1 | Level 2 | Level 3 | Level 4 |



Source: US National sample 2004

# Behaviors by Level of Activation Among Diabetes Patients



RWJ PeaceHealth Study 2006

# Behaviors in Medical Encounter by Activation Level



Information Seeking Behaviors — Level 1, Level 2, Level 3, Level 4

**Read about complications:** Level 1 = 36, Level 2 = 43, Level 3 = 52, Level 4 = 78

**Bring doctor a list of questions:** Level 1 = 29, Level 2 = 24, Level 3 = 45, Level 4 = 66

**Persistence In asking:** Level 1 = 8, Level 2 = 10, Level 3 = 22, Level 4 = 70

**Look up doctor's qualifications:** Level 1 = 10, Level 2 = 6, Level 3 = 16, Level 4 = 52

# Insights

Use activation level to determine what are realistic "next steps" for individuals to take

Many of the behaviors we are asking of people are only done by those in highest level of activation

When we focus on the more complex and difficult behaviors– we discourage the least activated

Start with behaviors more feasible for patients to take on, increases individual's opportunity to experience success

When activation changes several behaviors change
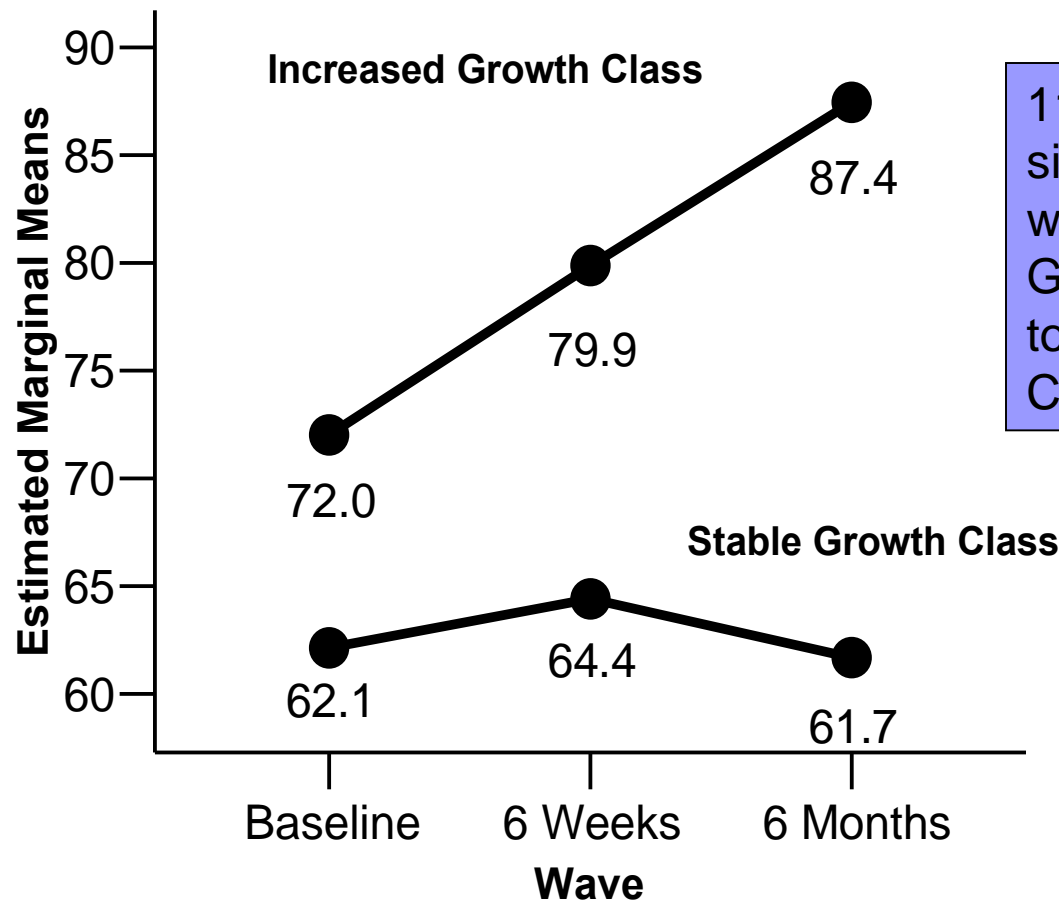
# Activation can predict utilization and health outcomes two years into the future for diabetics

| | % change for a 1 point change in PAM Score | 10 Point Gain in PAM Score 54 (L2) vs. 64(L3) | *P* |
|---|---|---|---|
| Hospitalization | 1.7% decline | 17% decreased likelihood of hospitalization | .03 |
| Good A1c control (HgA1c < 8%) | 1.8% gain | 18% greater likelihood of good glycemic control | .01 |
| A1c testing | 3.4% gain | 34% greater likelihood of testing | .01 |
| LDL-c testing | | | |

Carol Remmers. *The Relationship Between the Patient Activation Measure, Future Health Outcomes, and Health Care Utilization Among Patients with Diabetes*. Kaiser Care Management Institute, PhD Dissertation.

Multivariate analysis which controlled for age group, gender, race, comorbidities and number of diabetes-related prescriptions.

# Low activation signals problems (and opportunities)

## The MORE ACTIVATED you are in your own health care, the BETTER HEALTH CARE you get...

| | MORE ACTIVATED Patient | LESS ACTIVATED Patient |
|---|---|---|
| Readmitted to the hospital within 30 days of discharge | 12.8% | 28% |
| Experienced a medical error | 19.2% | 35.8% |
| Have poor care coordination between health care providers | 12.6% | 41.8% |
| Suffer a health consequence because of poor communication among providers | 13.2% | 48.6% |
| Lose confidence in the health care system | 15.1% | 59.8% |
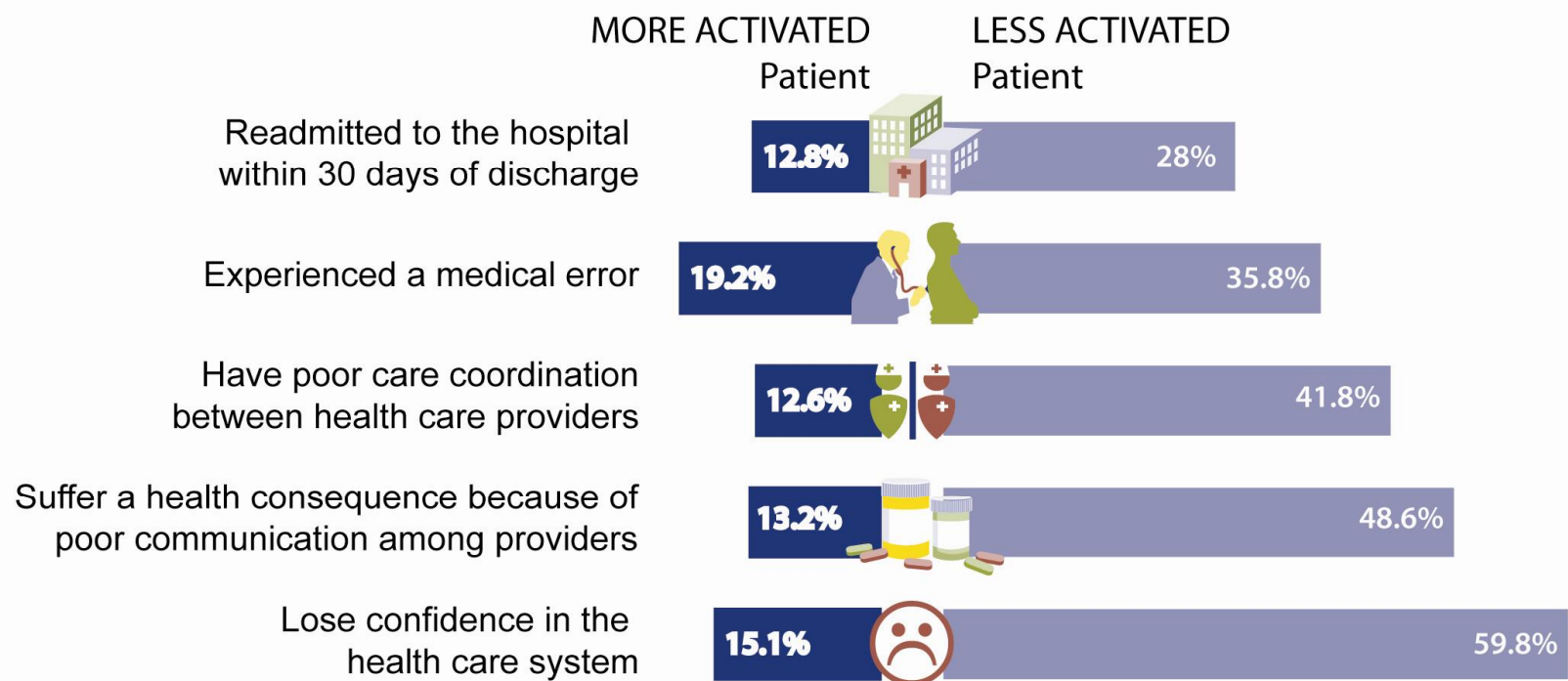
Source: Adapted from *AARP & You*, "Beyond 50.09" Patient Survey. Published in AARP Magazine. Study population age 50+ with at least one chronic condition. More Involved=Levels 3 & 4, Less Involved=Levels 1 & 2

# Using the PAM to Improve Care

Evaluations

Improve efficiencies

Improve efficacy

Population based approaches

Individual tailored approaches

# Tailoring Support to Activation Levels

**Level 1**

**Develop Basic Knowledge, Self-Awareness, & Confidence**

Individual becomes self-aware of own behaviors and symptoms. Focus coaching on the relationship between symptoms and behaviors, building self-confidence and awareness. The individual should choose the area(s) they want to work on.

**Level 2**

**Increase in Knowledge, Initial Skills Development**

Individual develops the knowledge, skills and confidence needed to master new self-management competencies. Coaching should focus on helping the individual learn to monitor symptoms, behaviors and adverse triggers - and adjust accordingly. Focus on taking small steps.

**Level 3**

**Initiate New Behaviors**

Individuals initiate new health promoting behavior(s) and work to further refine techniques to monitor and adjust. Coaching should focus on providing encouragement, noticing successes, and problem solving.

**Level 4**

**Maintaining Behaviors & Techniques to Prevent Relapse**

Individual strives to maintain desired health-related behaviors over time and learn to anticipate difficult situations that will arise. Coaching should focus on the issues that make it hard to stick to correct behaviors and to help the individual trouble-shoot.
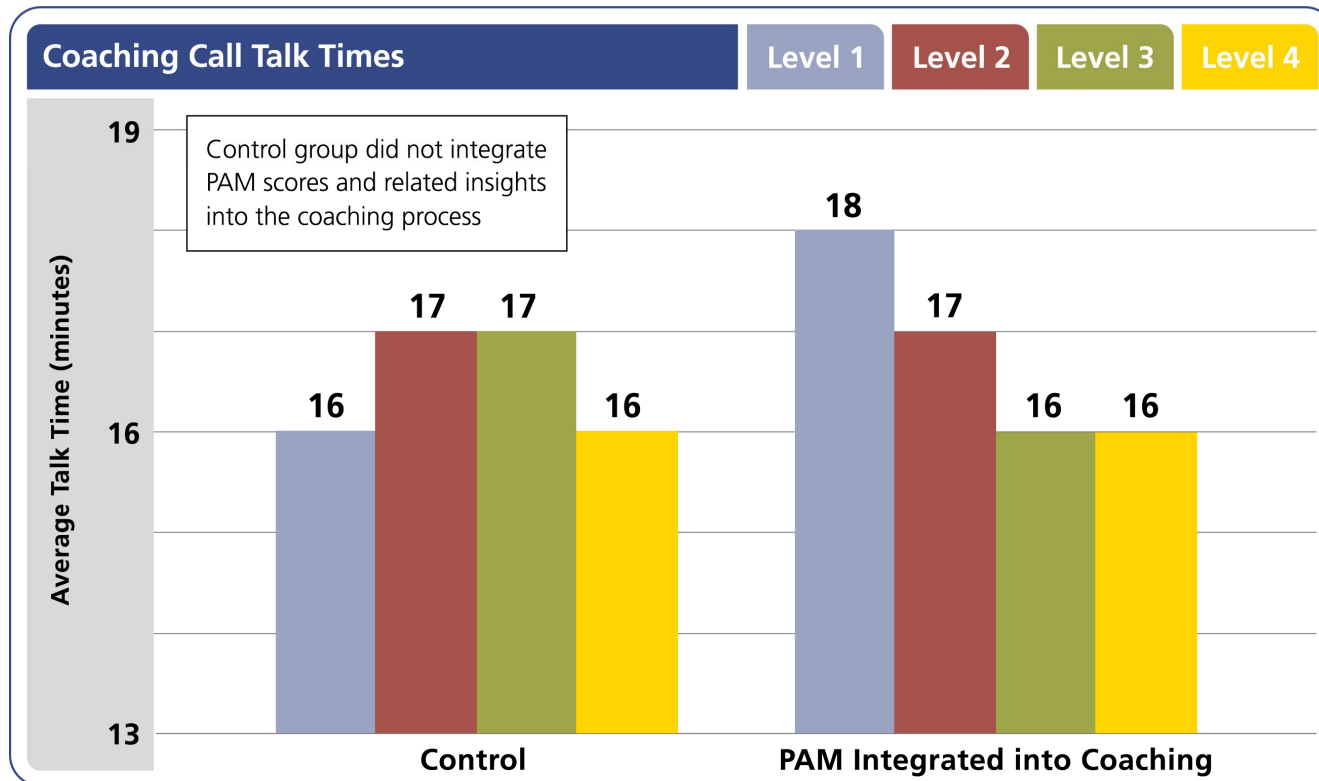
# Tailored Coaching Study

Intervention group coached based on level of activation. Control group was "usual care" coaching (DM company)

Examined changes in claims data, clinical indicators, and activation levels
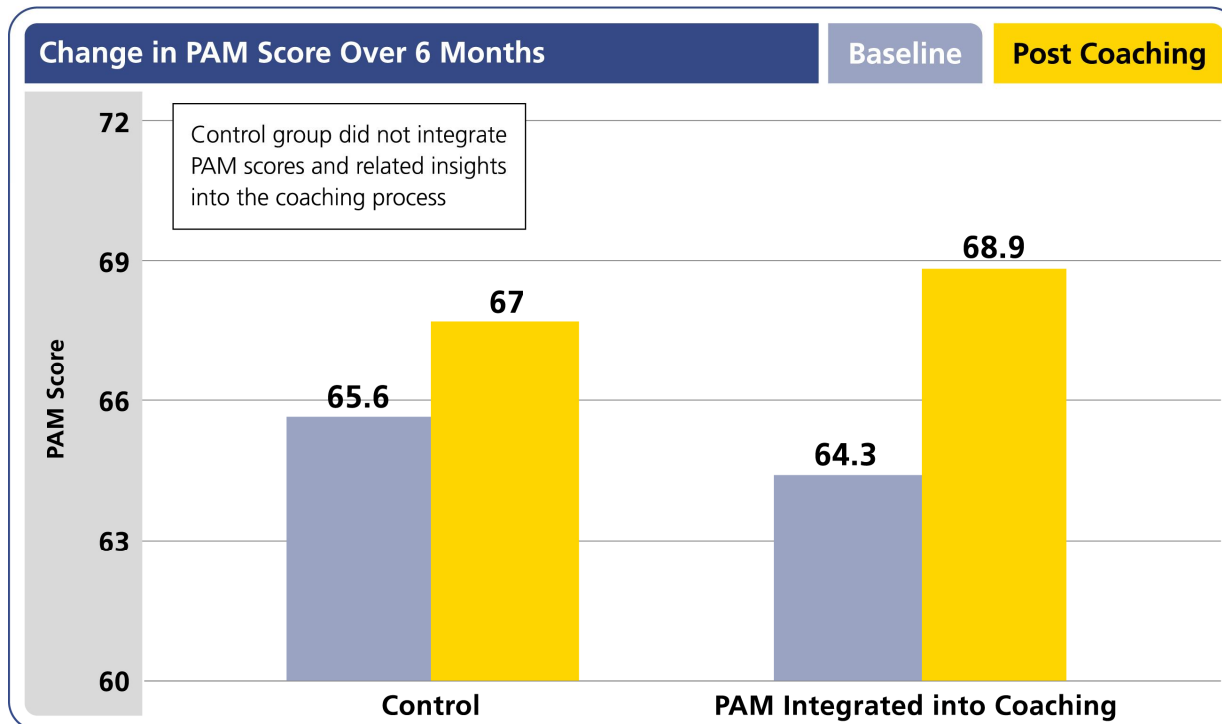
6 month Intervention period.

# Coaches allocated more talk time to lower activation participants when they had access to PAM scores



**Coaching Call Talk Times** — Level 1, Level 2, Level 3, Level 4

Average Talk Time (minutes)

Control group did not integrate PAM scores and related insights into the coaching process

**Control:** 16, 17, 17, 16
**PAM Integrated into Coaching:** 18, 17, 16, 16

Source: National DM Firm. N=1030 intervention; N=501 in control group.
Difference between the two groups is significant at the .05 level

# PAM tailored coaching resulted in a statistically significant greater gains in activation

| Change in PAM Score Over 6 Months | Baseline | Post Coaching |

Control group did not integrate PAM scores and related insights into the coaching process

PAM Score

72
69
66
63
60

67

65.6

68.9

64.3

Control

PAM Integrated into Coaching

N.=245 in intervention group; N=112 in control group. Only those with 3 PAM scores are included. Repeated measures shows that the gains in activation are significant in the intervention group and not significant for the control group (P<.001)

# Adherence to Recommended Treatments
## PAM-tailored Intervention vs. Usual Coaching Control

| Treatment | Mean Value, % | | Significance of Interaction of the Intervention and Repeated Measure |
| --- | --- | --- | --- |
| | Preintervention Period 2006 | Postintervention Period 2007 | |
| Influenza vaccine (all chronic conditions) | | | |
| Control (n = 2494) | 57.2 | 61.6 | F = 25.82, P = .000 |
| Intervention (n = 3483) | 53.1 | 64.6 | |
| ASA antiplatelet therapy (CAD) | | | |
| Control (n = 1329) | 83.5 | 84.1 | F = 42.49, P = .000 |
| Intervention (n = 1774) | 83.2 | 89.9 | |
| ASA antiplatelet therapy (diabetes) | | | |
| Control (n = 2165) | 68.5 | 58.1 | F = 67.99, P = .000 |
| Intervention (n = 3022) | 70.7 | 71.3 | |
| Antilipidemic therapy (CAD) | | | |
| Control (n = 2165) | 72.6 | 73.5 | F = 22.96, P = .000 |
| Intervention (n = 3022) | 70.2 | 75.6 | |
| Beta-blocker (CAD/CHF) | | | |
| Control (n = 1294) | 79.5 | 79.7 | F = 11.57, P = .000 |
| Intervention (n = 1506) | 76.4 | 79.0 | |
| ACEI/ARB (CHF) | | | |
| Control (n = 1177) | 80.1 | 79.3 | F = 3.90, P = .049 |
| Intervention (n = 692) | 79.1 | 79.9 | |

# Tailored coaching can improve adherence and reduce unwarranted utilization

## Change in Key Utilization Metrics Over 6 Months

**% Change**

- 20% (ER Visits bar) P=.006
- -22% (ER Visits)
- 0% Hospital Admits P=.000
- -33%
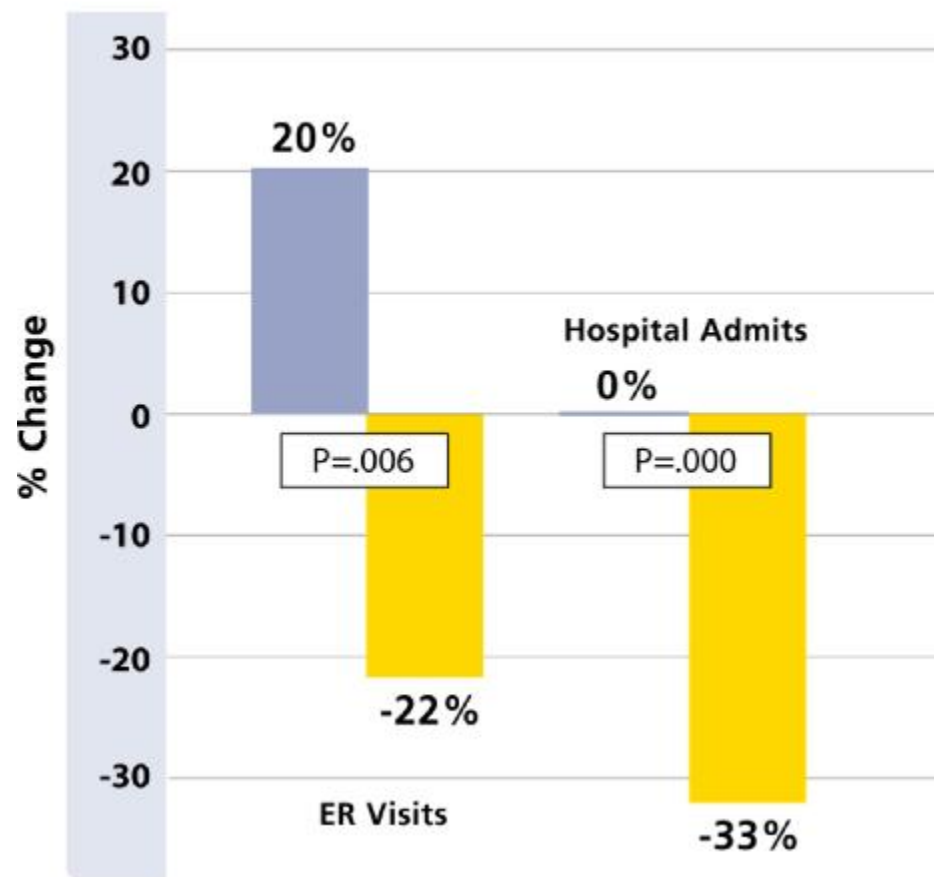
Hibbard, J, Green, J, Tusler, M. Improving the Outcomes of Disease Management by Tailoring Care to the Patient's Level of Activation. The American Journal of Managed Care, V.15, 6. June 2009

## Clinical Indicators*

**Medications:** intervention group increased adherence to recommended immunizations and drug regimens to a greater degree than the control group. This included getting influenza vaccine.

**Blood Pressure**: Intervention group had a significantly greater drop in diastolic as compared to control group.

**LDL**: Intervention group had a significantly greater reduction in LDL, as compared to the control group.

**A1c**: Both intervention and control showed improvements in A1c.

*Using repeated measures, and controlling for baseline measures

# Tailoring had a positive impact on all patient outcomes

˝ Findings consistent across all outcome measures

˝ Results are compared to usual coaching

˝ Valuable Implementation lessons learned along the way

# Greater Activation is Related to Better Outcomes (in multivariate analysis)

| | | | | | |
|---|---|---|---|---|---|
| **_Prevention_** | | | **_Clinical Indicators in Normal Range_** | | |
| Colon | .00 | | | | |
| Mammograms | **.02\*\*\*** | | | | |
| Pap Smears | **.01\*\*** | | | | |
| **_Healthy Behaviors_** | | | Systolic | **.01\*\*** | |
| | | | Diastolic | .00 | |
| Not Obese | **_.04\*\*\*_** | | | | |
| Not Smoking | **.02\*\*\*** | | HDL | **.02\*\*\*** | |
| | | | Triglycerides | **.01\*\*\*** | |
| | | | A1C | **.01\*** | |
| **_Costly Utilization_** | | | | | |
| Lower Hospital | **.00\*\*\*** | | | | |
| Lower ER | **_.01\*\*\*_** | | | | |

Controlling for age, income, gender, and number of chronic diseases

# Chronic Illness Patients Need both Clinical and Behavioral Interventions

˝ Providers are going to start being paid on outcomes—

. Total costs

. Clinical outcomes

. Patient Experience

. Panel size

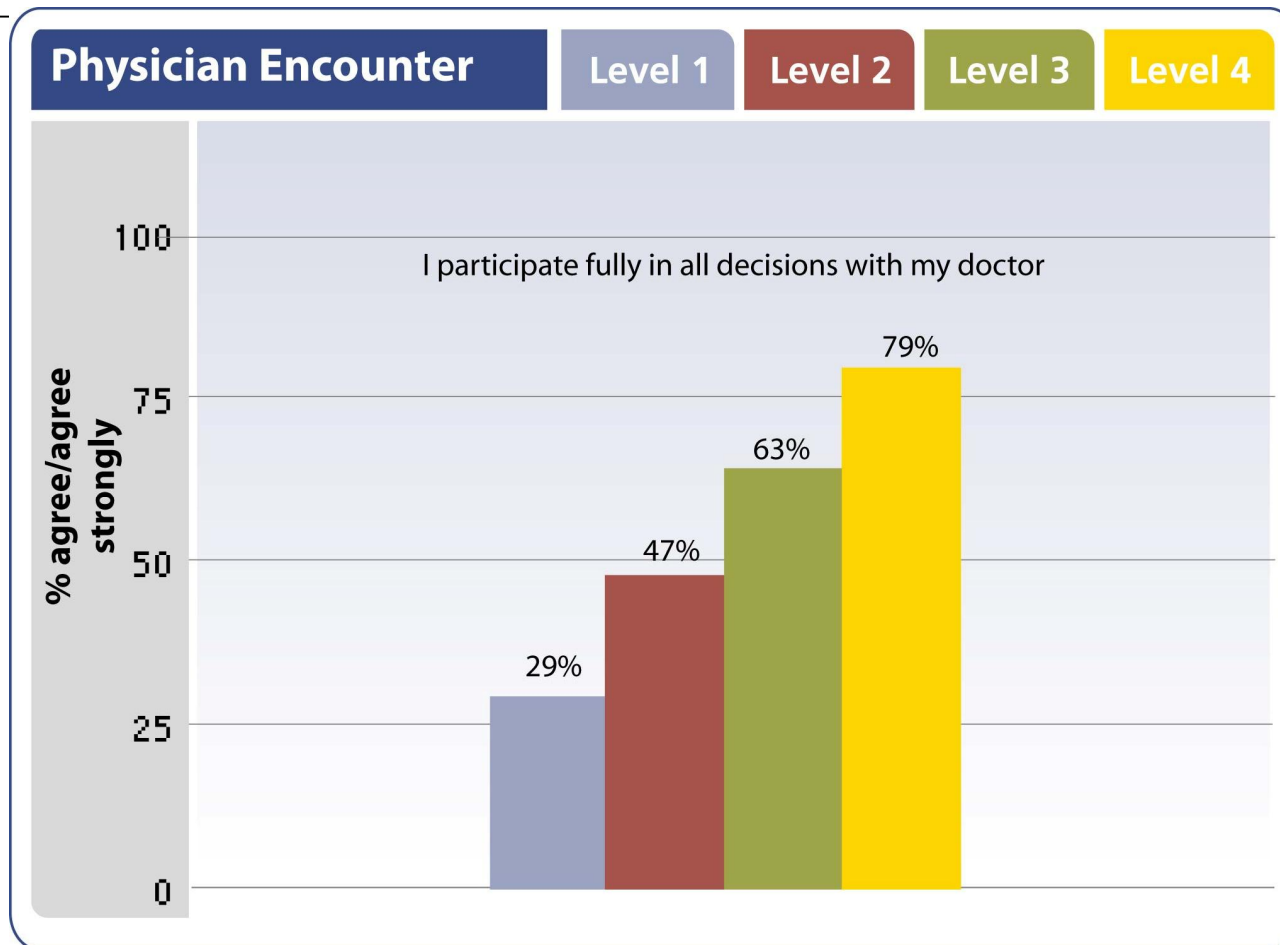˝ Will they tap into the resource that patients represent?

# Applications

Brief interventions  in the clinical setting– with follow-up

Team approach– and differential allocation of resources

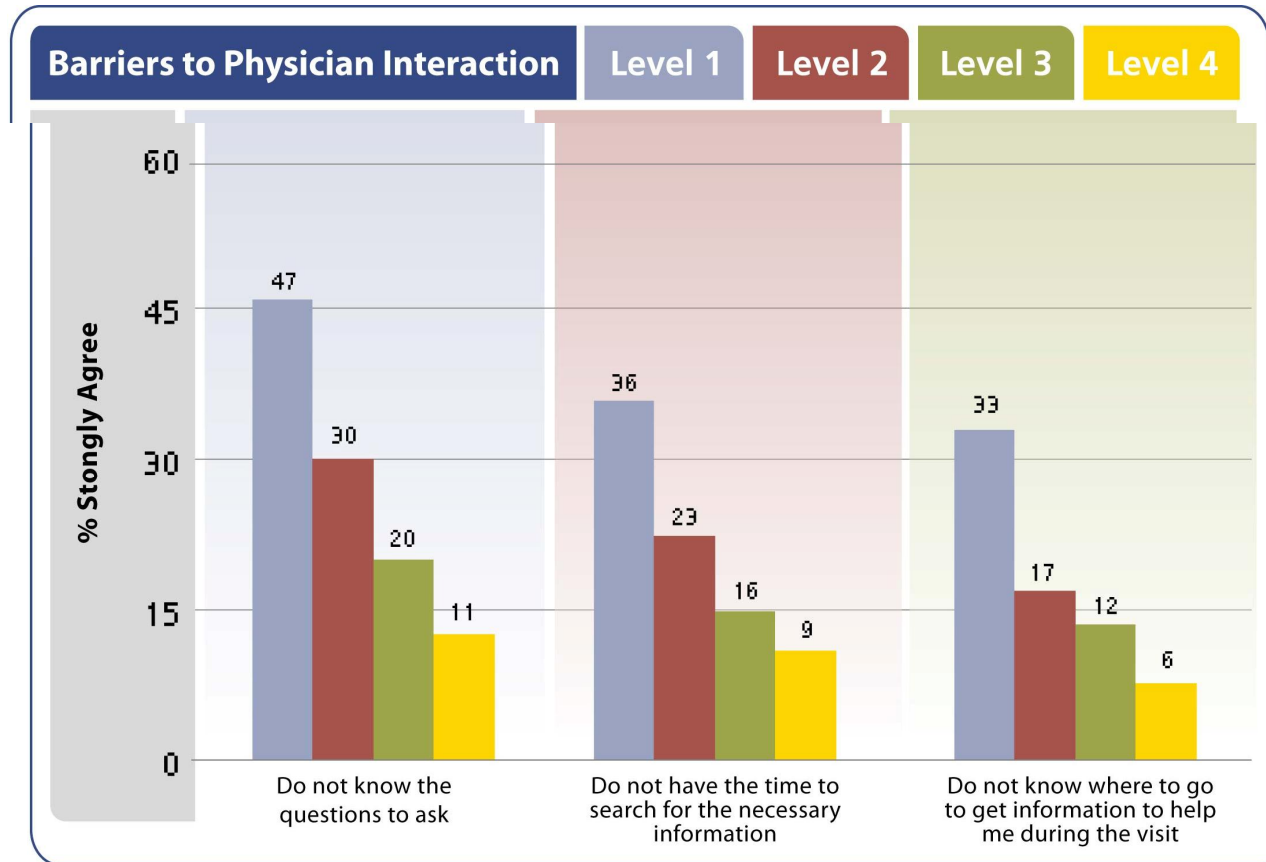 Care transitions and reducing hospital re-admissions

Wellness, disease management

# Activation and the medical encounter:
## "I participate Fully in All Decisions with My Doctor



| Physician Encounter | Level 1 | Level 2 | Level 3 | Level 4 |

I participate fully in all decisions with my doctor

% agree/agree strongly

- 29%
- 47%
- 63%
- 79%

Source: Midwest Employer Coalition Study, 2008. N=7,141

# Lower activated patients are less prepared for a successful interaction



| Barriers to Physician Interaction | Level 1 | Level 2 | Level 3 | Level 4 |

**% Stongly Agree**

Do not know the questions to ask: 47, 30, 20, 11

Do not have the time to search for the necessary information: 36, 23, 16, 9

Do not know where to go to get information to help me during the visit: 33, 17, 12, 6

Source: Midwest Employer Coalition Study, 2008. N=7,141

# Patients who get more support from their Doctors are more activated.



**Experience with Healthcare Providers** | Level 1 | Level 2 | Level 3 | Level 4

% at each level

Help them to set goals to improve their diet
- 48.3
- 65.3
- 78.6
- 83.6

Helped them to set goals for exercise
- 43.5
- 61.6
- 73.6
- 77.7

Taught them how to self-monitor their condition
- 42.2
- 66.5
- 80.9
- 84.7
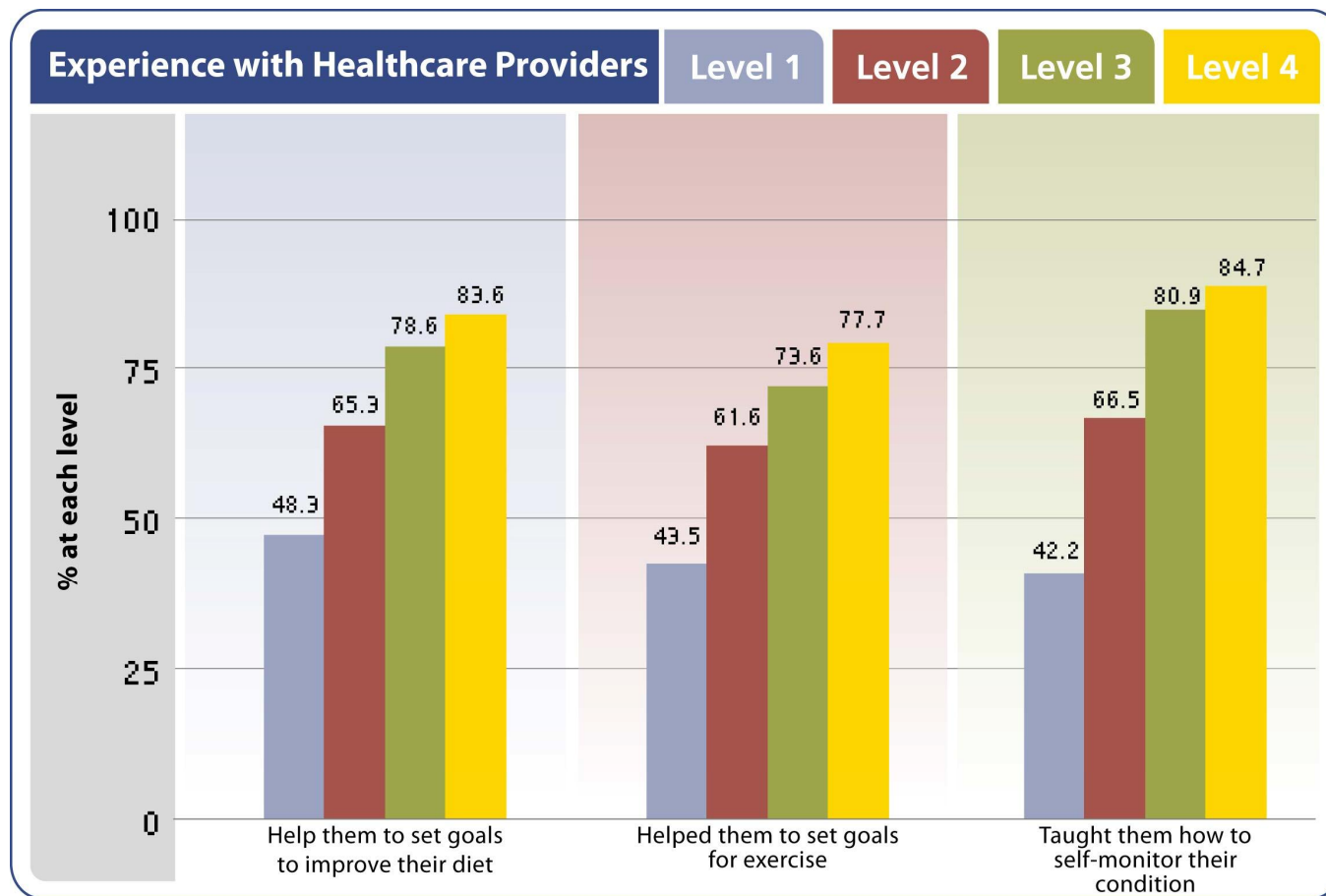
Source: Center For Studying Health System Change 2007 Household Tracking Study
Differences between level 4 and other levels significant at p<.05

# Effective Programs

˝ Means meeting people where they are

˝ Providing behavioral support that meets the individual's needs

˝ Measurement is key to making progress in this area